

***What Is Claimed Is:***

1. A container, comprising:
  - a base;
  - a body portion attached to the base;
  - a concave waist attached to the body portion and having a surface, the surface including a plurality of axial apexes and troughs alternately arranged around the waist;
  - a dome attached to the waist; and
  - a finish attached to the dome, the finish having an opening.
2. The container of claim 1, further comprising a first surface portion extending inwardly and downwardly from the dome to the waist;  
a second surface portion extending inwardly and upwardly from the body to the waist.
3. The container of claim 1, further comprising a first ridge and a second ridge arranged on either side of the waist, the apexes and the trough of the surface being recessed with respect to both of the first and second ridges.
4. The container of claim 1, wherein the waist unitarily connects the body and dome.

5. The container of claim 1, the first ridge has a diameter that is less than equal to or greater than a diameter of the second ridge.
6. The container of claim 1, further comprising panels connecting the apexes and trough, the panels arranged end to end.
7. The container of claim 6, wherein each panel has one end connected at an apex and one end connected at a trough.
8. A container, comprising:
  - a finish;
  - a dome attached to the finish, the dome extend from the finish to a first ridge having a first diameter;
  - a body having a second ridge with a second diameter;
  - a reduced diameter portion connecting the first ridge and the second ridge, the reduced diameter portion having a surface comprised of a plurality of panels, the panels having side edges adjacent to side edges of an adjacent panel and being alternately inclined and declined with respect to each other around the reduced diameter portion.
9. The container of claim 8, wherein side edges of adjacent panels form apexes and troughs.

10. The container of claim 9, wherein one side edge of a side panel forms an apex and the other side edge of the panel forms part of a trough.

11. The container of claim 8, wherein a first diameter of the first ridge is less than, greater than or equal to a second diameter of the second ridge.

12. A container, comprising:

a finish;

a body portion extending from the finish; and

an undulating surface disposed at the body portion in a recess, the undulating surface extending at least partially around a circumference of the container.

13. The container of claim 12, wherein the entire undulating surface has a reduced diameter with respect to the top and body portions.

14. The container of claim 12, wherein the undulating surface is comprised of a plurality of substantially V-shaped surfaces, the substantially V-shaped surfaces arranged immediately adjacent each other around the circumference.

15. The container of claim 12, wherein the undulating surface comprises of a

15. The container of claim 12, wherein the undulating surface comprises of a plurality of panels, the panels having side edges connected to side edges of an adjacent panel and being alternately inclined and declined with respect to each other around the circumference.

16. A container, comprising:

a finish;

a dome attached to the finish, the dome extend from the finish to a first ridge;

a body having a second ridge;

a reduced diameter portion connecting the first ridge and the second ridge;

a truss structure disposed in the reduced diameter portion, the truss structure being arranged continuously around at least a portion of a circumference of the container.

17. The container of claim 16, wherein the truss comprises a plurality of panels, the panels having side edges adjacent to side edges of an adjacent panel and being alternately inclined and declined with respect to each other around the reduced diameter portion.

18. The container of claim 16, wherein the truss structure includes a surface

having a plurality of axial apexes and troughs alternately arranged around the circumference of the reduced diameter portion.

19. A method for improving at least one of hoop strength, ovalization and top load strength in a blow molded plastic container, comprising:

providing the container with a waist; and

providing a truss structure in the waist.

20. The method of claim 19, wherein the truss comprises a plurality of panels, the panels having side edges connected to side edges of an adjacent panel and being alternately inclined and declined with respect to each other around the reduced diameter portion.

21. The method of claim 19, wherein the truss structure includes a surface having a plurality of axial apexes and troughs alternately arranged around the circumference of the reduced diameter portion.

22. The method of claim 19, wherein providing comprises blow molding the truss structure with the container.

23. The method of claim 19, wherein the waist is disposed between a dome portion and a body portion of the container